**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**

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| In the Matter of | ) | MM Docket No. 99-25 |
| | ) | |
| Creation of a Low | ) | RM-9208 |
| Power Radio Service | ) | RM-9242 |

To: The Commission

**REPLY COMMENTS OF GREATER MEDIA, INC.**

Greater Media, Inc. ("Greater Media"), through its attorneys and pursuant to Section 1.415 of the rules, hereby files its reply comments in connection with the Commission's Notice of Proposed Rule Making ("Notice") in the above-referenced docket inviting comment on its proposal to create a new low power FM ("LPFM") service. In support thereof, the following is shown:

1. Greater Media has actively participated in this proceeding from the outset and has reviewed the comments in this proceeding, including in particular the various receiver studies conducted and submitted to the Commission by the National Association of Broadcasters (NAB), the Consumer Electronics Association (CEMA), the National Lawyers Guild (Guild) and the Commission itself. Each of these studies confirms the conclusion advanced by Greater Media in its comments that compromising current second or third adjacent channel protection in order to implement a new LPFM service will result in massive and destructive interference in the FM band impacting tens of millions of radio listeners and undermining the technical integrity of the FM

service which has served the public for decades. However laudable the goals of the LPFM proposal may be, the Commission's proposal if adopted would create the new service only at the expense of significant and irreparable damage to current FM service and likely foreclosure of timely development of IBOC DAB, contrary to the public interest. Moreover, as stressed by Greater Media in its comments, adoption of the Commission's proposal in no way would accomplish the stated goals of LPFM—diversity of voices and new economic opportunities.

2. The NAB and CEMA receiver studies document a similar, comprehensive and representative sampling of consumer receivers. The NAB study in particular is probably the most comprehensive receiver evaluation ever conducted in the United States. The CEMA study also utilized exacting methodology and equally comprehensive testing procedures appropriate for an association whose membership includes the principal corporations engaged in the design and manufacture of radio receivers. Of particular note, both studies used the same definition of "impaired reception"--that is, a receiver signal-to-noise ratio of less than 50 dB--that was used by the Commission when it originally created the FM radio service; this figure is a recognized and nearly universal standard, worldwide, for these types of evaluations. The two studies were conducted independently of one another but reached the same conclusions:

(1) Current third adjacent channel protection requirements are entirely appropriate and the absolute minimum necessary to protect the vast majority of receivers in the existing receiver universe from harmful interference.

(2) Current second adjacent channel protection requirements are not fully adequate to protect the existing receiver universe from interference, and any further compromise in such requirements will result in massive new interference.

(3) The design of the vast majority of consumer radio receivers manufactured over the past several decades has not improved appreciably their ability to reject adjacent channel interference. Any suggestion to the contrary has been categorically disproved. In fact, a close examination of the receive test data shows that, in the case of the most widely used models of consumer receivers, performance has actually deteriorated from receiver tests conducted roughly a decade ago.

(4) The initiation of an LPFM service through the reduction in second and/or third adjacent channel protections would result in massive new interference to tens of millions of listeners now enjoying interference-free service.

(5) The initiation of new IBOC DAB service would be jeopardized by a reduction in current adjacent channel interference protections because the systems designed, built and tested by the major developers of IBOC DAB over a period of many

years have depended for their viability upon those protections.[1]

3. It is worth noting, with emphasis, that, while the Guild reached conclusions at odds with those of the NAB and CEMA, in fact the data developed by the Guild's own receiver study supports the NAB/CEMA conclusions respecting the adverse impact of LPFM on existing FM service. Applying conventional testing methodology, in which the proper demodulated receiver signal-to-noise ratio of 50 dB is the determining parameter in the evaluation of potential interference, to the Guild's raw data results in approximately the same increase in predicted interference as the NAB and CEMA studies when adjacent channel protections are similarly compromised. The only reason that the Guild study reached a contrary conclusion is that it erroneously employed a very high level (1% or 3%) of total harmonic distortion-plus-noise (THD+N) rather than the appropriate 50 dB demodulated receiver signal-to-noise ratio as the determining parameter in the ascertainment of interference. At such high levels of THD+N, radio signals would be classed either as "very irritating" or "unlistenable"; obviously neither of these standards can be used as an appropriate threshold for delineating the onset of

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[1]See, e.g., the November 8, 1999 edition of Electronic Media magazine, in which Mr. Robert Struble, president and CEO of USA Digital Radio, one of the three IBOC DAB components and an acknowledged expert in the field, warned that "low-power FM stations would interfere with IBOC signals. We think they [the FCC] should move forward on digital before they move forward on low-power FM."

interference. In fact, a demodulated receiver signal-to-noise ratio of 50 dB is the proper primary parameter to use in such evaluations, in large measure because this parameter is a far superior determinant of actual listener perception of "interference". If anything, in light of the heightened sophistication and expectations of today's listener due to the ubiquity of digital delivery of audio signals in other media, such as compact discs, it may be argued that an even more stringent standard than a 50 dB signal-to-noise ratio would be an appropriate gauge of the onset of perceptible interference.

4. While the Guild study largely supports the conclusions of the NAB and CEMA studies, the FCC's receiver study is defective because it fails to include any models representative of nearly 70% of the existing receiver universe. In particular, the FCC studied only receivers with an external antenna input connection, ignoring the vast majority of receivers in use by the public. Receivers with external antenna terminals as a group tend to be relatively "high end" products selling for premium prices. In no way are they representative of the receivers used by most Americans; rather, they represent just over 30% of the existing receiver universe. Further, like the Guild's study, the FCC's study erroneously employs total harmonic distortion-plus-noise (THD+N) as the determining parameter in the ascertainment of interference.

5. As noted in Greater Media's Comments (pp. 11-13), adoption of the Commission's proposal would jeopardize the on-going effort to develop IBOC DAB, which represents the next critical step in the technological advancement of the radio medium. In this regard, Greater Media welcomes the Commission's recent Notice of Proposed Rule Making released November 1, 1999 (FCC 99-327) to examine among other things the viability of IBOC DAB. It must be reiterated that the IBOC DAB systems in development for many years have relied upon existing interference criteria and that the success of IBOC DAB, by its nature, is dependent upon existing channel and interference relationships. The addition of many new signals and, worse still, the elimination of second and third adjacent and IF protections would likely doom any hope of implementing an IBOC DAB system. Further, the development of the three extant IBOC DAB systems is almost complete and the results of laboratory and field evaluations of those systems will be made public in the very near future. Greater Media urges the Commission not to adopt any changes in interference protection standards which would jeopardize digital conversion of the analog radio broadcast system at this critical juncture in the development of IBOC DAB.

6. It should also be reiterated that, as the Commission's own studies and the exhaustive NAB analysis demonstrate, there will be few, if any, LPFM stations possible in most major

population centers. In addition, as the experience of Docket 80-90 showed, smaller markets do not have the economic base to absorb numerous new facilities which will be made possible by the elimination of fundamental second and third adjacent channel protections of many years standing without jeopardizing the economic viability of existing full-service stations on which listeners and advertisers rely. In short, the proposed LPFM service does not present realistic economic opportunity and will not result in meaningful increases in diversity of voices in the marketplace. In this regard, Greater Media desires to stress that, as a major market broadcaster, it in no way fears competition from LPFM; on the other hand, Greater Media is vitally concerned that the elimination of fundamental technical rules will eviscerate the protected service area of its facilities, which have been acquired and operated at substantial expense in reliance on those rules. Moreover, as stated in its Comments (p. 15, fn. 5), Greater Media submits that the exploding Internet provides a readily accessible medium for the expression of views to narrowly targeted audiences, and is now far more effective than the mature FM radio service as a means of promoting diversity of viewpoints. Finally, Greater Media urges the Commission to take note of the incumbent broadcast industry's establishment of the Prism Fund to encourage diversity of radio station ownership through capital investment in existing facilities. This

endeavor addresses in a meaningful way the Commission's diversity concerns without undermining the integrity of the FM band.

7. The Commission's single most important responsibility in the broadcast arena is to assure maintenance of spectrum integrity and to provide, to authorized radio stations in any service, adequate, effective protection from interference. Without assuring the fundamental technical integrity of broadcast service, the Commission cannot pursue other laudable goals such as diversity of broadcast voices. Based upon exhaustive technical studies, including the study of an LPFM proponent, the establishment of an LPFM service would severely compromise, if not destroy, the existing FM radio service and return the US broadcast system to the chaos of yesteryear without creating a meaningful opportunity for new stations of any power level to be added to most radio markets. In addition, such a course could well foreclose efficient and effective radio broadcast entry into the digital age by undermining the extensive and costly efforts to date to develop IBOC DAB. The Commission should not pursue this course.

WHEREFORE, for the foregoing reasons and for the reasons set forth in its comments filed in this proceeding, Greater Media urges the Commission not to adopt, in whole or in part, the proposals contained in its Notice.

Respectfully submitted,

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